TABLE 57.02–1(a)—LIMITATIONS AND MODIFICATIONS TO THE ADOPTION OF SECTION IX OF THE ASME CODE

Paragraphs in section IX ASME code, and Disposition	Unit of this part
QW–101 replaced by	57.01–1(a).
QW–103 replaced by	57.02–3(a).
QW–201 modified by	57.03–1(a).
QW–202 modified by	57.04–1
QW–202.1 modified by	57.03–1(b).
QW–210 modified by	57.04–1.
QW–211 modified by	57.02–4.
QW–253 modified by	57.03–1(g).
QW–254 modified by	57.03–1(g).
QW–255 modified by	57.03–1(g).
QW–305 modified by	57.01–1(b).
QW–451 modified by	57.03–1(b) and 57.04–1.
QB–101 replaced by	57.01–1(a).
QB–103 replaced by	57.02–3(a).
QB–201 modified by	57.03–1(a).
QB–202 modified by	57.04–1.
QB–305 modified by	57.01–1(b).

(1) As stated in §50.15–5 of this subchapter, section IX of the ASME Code is adopted and shall be the governing requirements for the qualification of all types of welders and brazers, the qualification of all types of welding procedures, and the production tests for all types of manual and machine arc and gas welding and brazing processes used in fabricating power boilers, heating boilers, pressure vessels and piping unless specifically limited, modified or replaced by other regulations in this part.

(b) References to the ASME Code, like paragraph QW–131.1 indicate:

Q=Section IX, Welding and Brazing Qualifications, ASME Code.
W=Part containing requirements for welding procedure, welder, and welding operator qualifications.
131=Major division within the part.
131.1=Specific subparagraph within the part.

(c) When a paragraph or a section of the regulations in this part relates to material in section IX of the ASME Code, the relationship with the code will be shown immediately following the heading of the section or at the beginning of the paragraph as follows:

(1) (Modifies Q_____.) This indicates that the material in Q_____ is generally applicable but is being altered, amplified or augmented.

(2) (Replaces Q_____.) This indicates that Q_____ does not apply.

(3) (Reproduces Q_____.) This indicates that Q_____ is being identically reproduced for convenience, not for emphasis.

[CGFR 68–82, 33 FR 18872, Dec. 18, 1968, as amended by CGFR 69–127, 35 FR 9980, June 17, 1970; CGD 74–102, 40 FR 27460, June 30, 1975. Redesignated by CGD 88–032, 56 FR 35823, July 29, 1991; CGD 95–012, 60 FR 48050, Sept. 18, 1995]

§ 57.02–3 Performance qualifications issued by other agencies.

(a) Within the limits of the qualification tests passed, the Officer in Charge, Marine Inspection, may accept welders who have been qualified by other agencies of the Federal Government; by the American Bureau of Shipping; or by the fabricator concerned, provided the fabricator's tests have been certified by an authorized Code inspector as defined in paragraphs PG–91, N–612, HG–515.2, or UG–91 of the ASME Code.

[CGFR 68–82, 33 FR 18872, Dec. 18, 1968. Redesignated by CGD 88–032, 56 FR 35832, July 29, 1991]

§ 57.02–4 Fabricator's responsibility.

(a) (*Replaces QW 103 and QB 103*). Each manufacturer or contractor is responsible for the welding and brazing done by his organization and shall conduct tests required in this part to qualify the welding and brazing procedures used and the performance of welders and brazers who apply these procedures. The manufacturer shall bear the expense of conducting the tests. Each manufacturer shall maintain a record of the test results obtained in welding and brazing procedure and welder and brazer performance qualifications. These required records, together with identification data, shall be maintained by the manufacturer or contractor on the recommended forms illustrated in QW 480 and QB 480 of section IX, ASME Code, or on any other form acceptable to the Officer in Charge, Marine Inspection. Upon request, duplicate forms shall be furnished by the manufacturer or contractor to the marine inspector.

(b) Except as otherwise provided for in §57.02–2, the fabricator shall notify the Officer in Charge, Marine Inspection, prior to conducting performance or procedure qualification tests, and arrange a suitable time and place for

conducting the tests, so that a marine inspector may be present.

[CGFR 68–82, 33 FR 18872, Dec. 18, 1968, as amended by CGD 74–102, 40 FR 27460, June 30, 1975. Redesignated by CGD 88–032, 56 FR 35823, July 29, 1991]

§ 57.02–5 Filler metals.

(a) Except as provided for in paragraph (b) of this section, when filler metal is used in a welded fabrication that is required to meet the requirements of this part the filler metal must be one that has been approved by the American Bureau of Shipping.

(b) In instances where a fabricator desires to use a filler metal which has not been approved by the American Bureau of Shipping the approval of the filler metal can be made by the Officer in Charge, Marine Inspection on the basis of the fabricator passing the weld procedure qualification tests as outlined in this part. This alternate means of approval applies to wire-gas and wire-flux combinations as well as to stick electrodes. Filler metal approvals given in this manner will extend only to the specific fabricator to whom they are granted.

[CGD 74–102, 40 FR 27460, June 30, 1975. Redesignated by CGD 88–032, 56 FR 35823, July 29, 1991]

Subpart 57.03—Procedure Qualifications

§ 57.03–1 General requirements.

(a) (*Modifies QW 201 and QB 201*). In order to obtain Coast Guard approval of a weld procedure to be used on welded fabrication that is required to meet the requirements of this part each manufacturer or contractor must do the following:

(1) Each manufacturer or contractor must submit to the cognizant Officer in Charge, Marine Inspection, for approval, a welding or brazing procedure specification for the particular welding or brazing process to be used. The welding or brazing procedure specification must include a sketch showing joint preparation. Suggested forms showing the information which is required in the welding or brazing procedure specification are in QW 480 and QB 480 of section IX of the ASME Code.

(2) Each manufacturer or contractor must submit to the cognizant Officer in Charge, Marine Inspection, for approval, the results of the physical tests required by section IX of the ASME Code.

(b) (*Modifies QW 202.1 and QW 451*). To obtain approval of the welding procedure, fabricators desiring to use any welding process for applications involving temperatures below −18 °C (approx. 0 °F) must conduct a procedure qualification test in accordance with the requirements of paragraph (a) of this section and the following additional requirements:

(1) The test piece must be large enough so that sufficient material is available for the tests prescribed in QW 451 of the ASME Code, plus toughness tests and a macro-etch specimen.

(2) To obtain approval the fabricator must conduct toughness tests and qualify in accordance with § 54.05 of the subchapter. Results of toughness tests must be submitted for approval to the cognizant Officer in Charge, Marine Inspection.

(3) The macro-etch specimen must be submitted with the test results required by paragraph (a) of this section. Macro-etch specimens must not be obtained by flame or arc cutting from the test piece. Weld reinforcement must remain in place unless the production welds are to be machined or ground. Backing rings must also be left in place unless they are to be removed in production.

(4) Low temperature procedure qualification thickness ranges are as indicated in Table 57.03–1(b).

TABLE 57.03–1(b)—LOW TEMPERATURE WELD PROCEDURE QUALIFICATION THICKNESS RANGES

Thickness, "t" of test plate or pipe as welded (inches)	Range of thickness of materials qualified by test plate or pipe (inches)	
	Minimum	Maximum
1/16 to 3/8, inclusive	1/16	3/8
Over 3/8 but less than 3/4	*3/8	3/4
3/4 to 3, inclusive	3/4	**t

*For thicknesses less than 5/8 inch, the thickness of the test plate or pipe is the minimum thickness qualified.

**Where "t" is the thickest material over 3/4 inch to be used in production.

(5) The limits for heat input production, as measured in Joules/inch, must be at or below the maximum heat input